

5/45

DART AEROSPACE LTD	Work Order:	24640
Description: Blade Fitting RH	Part Number:	D2742-2
Dwg: D2742 Rev. B1; DSK-050 Rev. A; D6103 Rev. A	Qty:	1025

Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller Dwg not required	DM	05.10.21	10
2	PG	Issue P/O: <u>2008815</u> Material: 7075-T6/T651 (QQ-A-200/11 or QQ-A-225/9) 3.250" OD x 12.500" Long (+0.100/-0.030) per P/N D6103-001 Certificate of Conformity is required	AB	05-10-21	10
3	RG	Receive and Inspect for transit damage Ensure Certificate of Conformity is attached	CD	05/10/21	10
4	QC6	Inspect dimensions as per Dwg D6103	CA	06-01-09	10
5	MS PG	Machine as per Folio FA099 (Note: Lathe work only!) Issue P.O <u>378</u> to turn only per drawing	AB	06.01.12	10
6	QC6 RG	Inspect parts as they come off the CNC machine <i>Receive & Inspect</i>	CD	06/01/20	10
7	QC6	Second inspection <i>Inspect QC6</i>	CD	06-02-01	10
8	MV	Machine as per Folio FA099 (Note: HAAS work!)	CD	06/02/01	25
9	QC2	Inspect parts as they come off the CNC machine	CD	06/02/01	25
10	QC8	Second inspection	JL	06.02.04	25
11	FP	Chemical Conversion Coat as per QSI 005 4.1	MM	06.02.08	25
12	FP	Powder Coat White (REF 4.3.5.1) as per QSI 005 4.3	MM	06.02.10	25
13	QC3	Inspect Powder Coat	MM	06.02.10	25
14	FP	Install ALS4-1032-225 Insert as per Dwg D2742 Qty Part Number Description Batch 4 ALS4-1032-225 Insert <u>M14576</u>	MM	06-02-14	25
15	QC5	Inspect part 100% for completeness on the W/O	MM	06.02.14	25
16	FP	Identify and Stock	MM	06.02.14	25
17	AC	Cost / part	SUR	06.02.15	25
18	DC	Close W/O Inspect Level 21	CD	06/02/15	25

Rev	Date	Change	Revised By	Approved
A	98.09.09	New Issue	DS/CP	
B	98.11.02	Blank size, inspection level added	KS	
C	99.02.02	Changed Procedure, Insert	DM	
D	00.11.01	Removed P/O for Powder Coat & for turning	EC	
E	00.11.17	Added picking DSK-050	EC	
F	02.05.07	Added turning sequence(remove DSK 050)	NG	
G	02.09.20	Re-format; Added P/O	KJ	
H	04.03.09	Added Steps 3 & 4	KJ/RF	

RELEASED
04.04.01

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector	
			Initial Design Mgr	Action Description Design Mgr	Sign & Date				
06/02/02	8	Dimension of 0.508" hole is oversize 0.514" and dimension of 0.500" holes is oversize 0.510"	CP 06/02/02 P.W. 06/02/02	changed Drill and changed holder of the Reamer.	ms 06/02/02	J 06/02/02	UP 06/02/02 per QS1042	J 06/02/02	
06/02/02	8	Dimension 0.590" is out of tolerance actual Dimension 0.577"	CP 06/02/02	change program X value off by 0.015" add dimension 0.590" to F.A.I	J 06/02/02 S.G. 06/02/02	J 06/02/02	J 06/02/02	J 06/02/02	

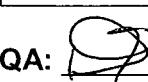
Part No: _____

PAR #: _____

Fault Category: _____

NCR: Yes

(No)

DQA: 

Date: 06/02/02

NOTE: Date & initial all entries

QA: N/C Closed: _____

Date: _____

DART AEROSPACE LTD		Work Order:	24640
Description: Blade Fitting		Part Number:	D2742-2
Inspection Dwg: D2742 Rev: B1; DSK050 Rev: A		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

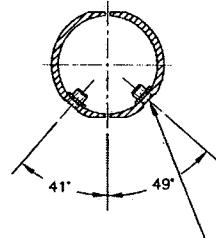
First Article Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
LATHE	8.000	+0.030/-0.000				
	9.250	+/-0.010				
	Ø3.240	+0.005/-0.000				
	Ø3.125	+0.005/-0.000				
	Ø2.780	+0.005/-0.000				
	Ø2.450	+0.005/-0.000				
	0.125 x 45°	+/-0.010				
	0.125	+/-0.010				
	12.50	+0.030/-0.000				
HAAS	0.100 x 0.135	N/A	N/A			
	0.500	+0.005/-0.000	.504	✓		
	1.500	+/-0.005	1.560	✓		
	11.46	+/-0.030	11.469	✓		
	1.180	+/-0.005	1.179	✓		
	3.150	+/-0.005	3.150	✓		
	3.500	+/-0.005	3.498	✓		
	Ø0.484	+0.005/-0.000	Ø0.486	✓		
	Ø0.508	+0.005/-0.000	.511	✓		
	1.000	+/-0.010	1.005	✓		
	0.926	+/-0.010	.930	✓		
	0.500	+/-0.010	.508	✓		
	1.230	+/-0.010	1.226	✓		
	0.125	+/-0.010	.125	✓		
	2.620	+/-0.010	2.624	✓		
	0.297	+0.005/-0.000	.298	✓		
	Ø0.430 x 0.045	+/-0.010	Ø0.432 x 0.043	✓		

Measured by:	MS	Audited by:	J.L	Prototype Approval:	N/A
Date:	06/02/01	Date:	06.02.01	Date:	N/A

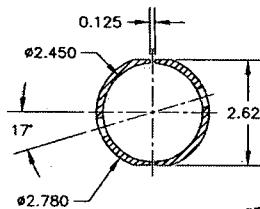
Rev	Date	Change	Revised by	Approved
A	03.12.12	New Issue	KJ/RF	

SECTION B-B



0.297
C'BORE $\phi 0.430 \times 0.045"$
INSTALL ALS4-1032-225 (OR AKS4-1032-225)
OR ALS7-1032-225 OR AKS7-1032-225
INSERTS AFTER FINISH
(4 PLACES)

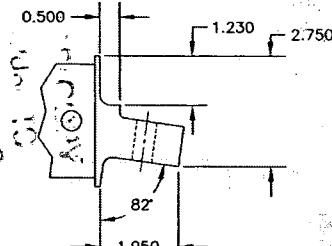
SECTION A-A



NO. 24640
WORK ORDER

EFFECTIVE	DEOs
9147	

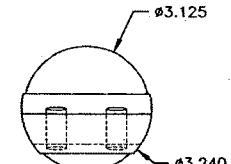
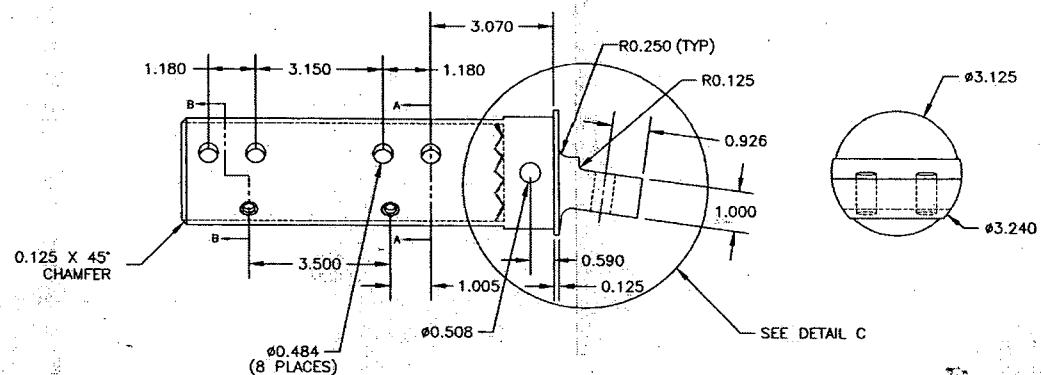
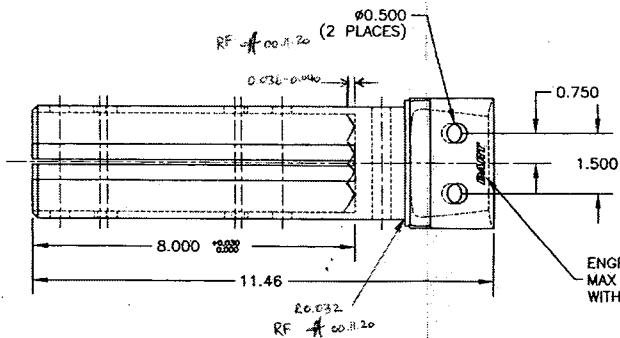
1F COPY
11/10/98
RIGHT NOTICE



DETAIL C

GENERAL NOTES

MATERIAL: 7075-T651 (QQ-A-200/11 OR QQ-A-225/9)
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



D2742-1 SHOWN (D2742-2 OPPOSITE)

RELEASED
98.11.03 DS

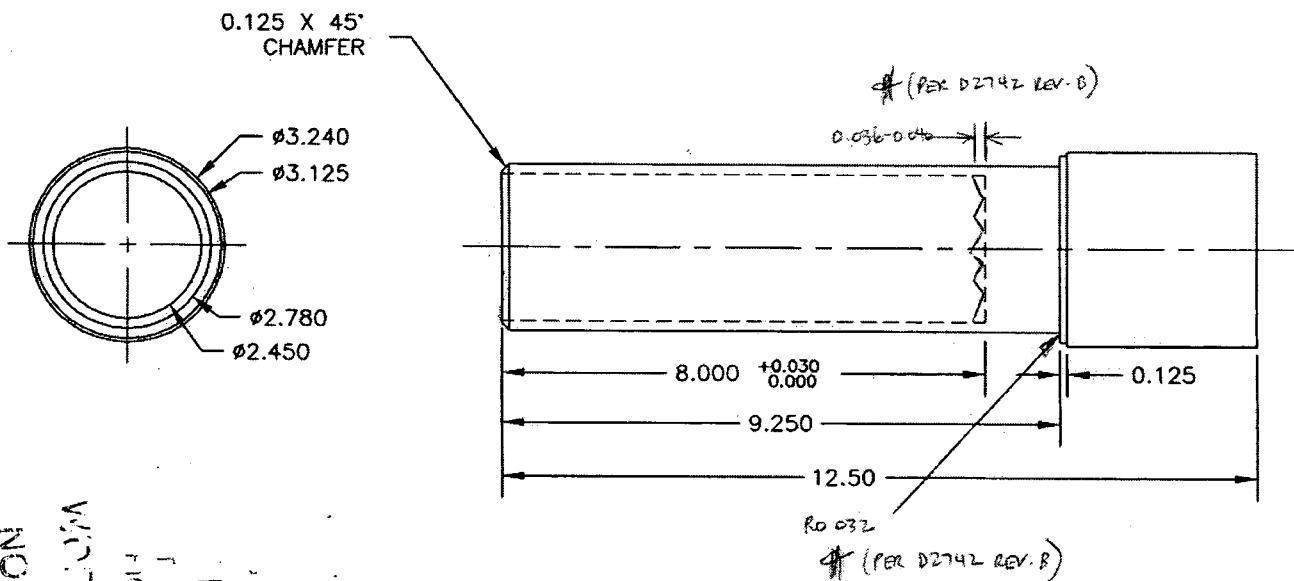


B	98.09.01	ADD INSERTS, AS MANUFACTURED
A	98.04.16	NEW ISSUE
DESIGN	DRAWN BY	DART AEROSPACE USA, INC. FIRCHILD INTERNATIONAL AIRPORT, WA
CHECKED	APPROVED	REV. B
DATE	DRAWING NO.	SHEET 1 OF 1
98.09.01	D2742	11
	TITLE	SCALE
	BLADE FITTING	1:1

RF +/- 0.010 ADD R0.032 + CHARGE BORE DETAIL

DART**RELEASED**
98.02.03 DS

DESIGN	DRAWN BY	DART AEROSPACE LTD
DS	KE	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
RF	SM	DSK-050
DATE	SCALE	REVISION
98.12.07	1:3	SHEET 1 OF 1
A	98.12.07	NEW ISSUE

GENERAL NOTES

MATERIAL: 7075-T651 (QQ-A-200/11 OR QQ-A-225/9)

FINISH: NONE

BREAK UNMARKED SHARP EDGES 0.010 TO 0.020

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

WORK ORDER
NO. 24440

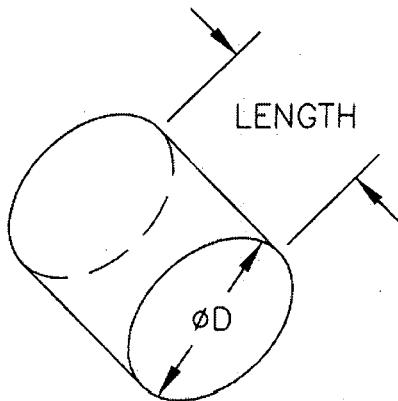
1 COPY
1 PRINT
1 CHECK
1 REV. B



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>✓</i>	APPROVED <i>✓</i>	DRAWING NO. D6103	Rev. A SHEET 1 OF 1	
DATE 01.04.10		TITLE ROUND BILLET, ALUMINUM	SCALE NTS	
A	01.04.10	NEW ISSUE		

SPECIFICATION CONTROL DRAWING

RELEASED
01-04-23



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

• COPY
COMMENT
VICE

WORK ORDER

NO. 24640

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Job Costing Report

Dart Aerospace Ltd.
HawkesburyOct 20, 2005
04:09 pm

Work Order No : 0024640
 Project Name : D2742-2
 Project For : WK545
 Work Order Type : Main
 Main WO Number :
 House Part Number : D2742-2
 Description : Blade Fitting, RH
 Manufactured : Yes
 Amount Req'd : 10
 Amount Done : 0
 Start Date : 10-20-05
 Est Finish Date : 11-11-05
 Act Finish Date :
 Drawings Reqd : No
 Ok for Approval :
 Approval Rec'd : \$0 Posted to Finished Goods

Department Code:
 Burden Flags : NNNNNNN
 WO Status : Open
 Invoice State : Not Invoiced
 Invoice Date :
 Invoice Number :
 Invoice Amount : 0.00

Order Entry No :
 OE Value : 0.00

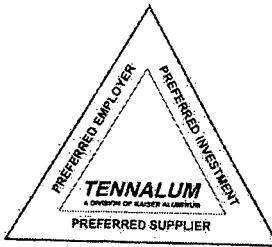
Est Mark Up : 0.000%
 Actual Mark Up : 0.000%

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	0.00	0.00	0.00	0.00	0.00
Engineering Hours	0.00	0.00	0.00		
Engineering Cost	0.00	0.00	0.00	0.00	0.00
Production Hours	0.00	0.00	0.00		
Production Cost	0.00	0.00	0.00	0.00	0.00
Packaging Hours	0.00	0.00	0.00		
Packaging Cost	0.00	0.00	0.00	0.00	0.00
OverHead Hours	0.00	0.00	0.00		
OverHead Cost	0.00	0.00	0.00	0.00	0.00
CNC Hours	0.00	0.00	0.00		
CNC	0.00	0.00	0.00	0.00	0.00
Misc. Hours	0.00	0.00	0.00		
Misc.	0.00	0.00	0.00	0.00	0.00
<hr/>					
Burden	0.00	0.00	0.00		
<hr/>					
Total Cost	0.00	0.00	0.00		
Mark up	0.000	0.000			
Selling Cost	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done	0.00	0.00
Profits/ (Loss)	0.00	0.00

KAISER ALUMINUM FABRICATED PRODUCTS

Tennalum
PO Box 669
Jackson, TN 38302
731-423-2811



CERTIFIED TEST REPORT

<http://KaiserEngProd.com>

CUSTOMER PO NUMBER: CB1812 <i>Kfe</i> <i>22-05</i>	CUSTOMER PART NUMBER: 024363		PRODUCT DESCRIPTION: Cold Finished Round		
KAISER ORDER NUMBER: 597747	LINE ITEM: 1	SHIP DATE: 02/01/2005	ALLOY: 7075	TEMPER: T651	
WEIGHT SHIPPED: 485 lbs.	QUANTITY: 4 pcs.	B/L NUMBER: 22694	DIAM/DAF/THKNS: 3.250 in.	WIDTH: 0.000 in.	LENGTH: 144.0 in.
SHIP TO: Copper & Brass Sales Inc Suite 702 5207 Linbar Drive Nashville, TN 37211 USA			SOLD TO: Copper & Brass Sales Inc Attn: Accounts Payable P. O. Box 5116 Southfield, MI 48086-5116 USA		

Test Code: 1000

Actual Physical Properties

Lot Number	LONG.	LONG.	LONG.
	UTS ksi	YTS ksi	ELONG. %
20062743	81.0	73.7	14.0

Chemical Composition, WT. % (Aluminum Remainder)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	OTHERS	OTHERS
								EACH	TOTAL
Max	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05
Min			1.2		2.1	0.18	5.1		0.15

Specifications

Standard: ISO 9001, ASTMB211-03, AMS4123G, AMS-QQ-A-225/9

CUSTOMER:

CUSTOMER PO #:

WORK ORDER #:

PART NO.:

Q.C. DATE:

Miscellaneous Notes

This material was melted and manufactured in the USA. Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. This material meets the requirements of (cold finished) T6 temper, AMS 4122J and QQ-A-225/9E (CANCELLED).

CERTIFICATION

Kaiser Aluminum & Chemical Corporation ("Kaiser") hereby certifies that the metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

John Rennekamp, Quality Manager

John Rennekamp

Plant Serial: 47252

Kaiser Order Number: 597747

Line Item: 1

Chris Provencal

From: David Shepherd [davids@dartaero.com]
Sent: February 2, 2006 11:03 AM
To: Chris Provencal
Subject: Re: D2742-2 NCR

These are acceptable deviations.

David

----- Original Message -----

From: "Chris Provencal" <cprovencal@dartaero.com>
To: <davids@dartaero.com>
Sent: Thursday, February 02, 2006 8:28 AM
Subject: D2742-2 NCR

> Dave, for a D2742-2 blade fitting:
>
> The holes that the stinger connect to should be 0.500" OD, they are 0.511"
> (0.006" over tol)
>
> The aftmost skidtube hole should be 0.508" OD, it is 0.514" (0.001" over
> tol)
>
> Sincerely,
> Chris Provencal
> DART Aerospace Ltd.
> Email...cprovencal@dartaero.com
> Phone....613-632-3336
> Fax.....613-632-4443
>
>